

STIC Search Report

STIC Database Tracking Number: 175917

TO: Kuen S Lu

Location: RND 3B02

Art Unit: 2167

Monday, January 09, 2006

Case Serial Number: 09/885902

From: Ruth E. Spink Location: EIC 2100

RND-4B31

Phone: 23524

Ruth.spink@uspto.gov

Search Notes

Kuen – Attached is the foreign patent and NPL search for the above referenced case. I tagged a few that I thought might be of particular interest. Be sure to let me know if you would like for me to refocus the search.

Ruth





Date picked up

Search Request Form |759|7

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Today's Date:	19/2005	What date would Priority Date: 6/4	you like to use to limit the search? リ/200 <u>/</u> Other:
Name <u>Kuen</u> AU <u>2/67</u> Room # <u>KAN 3</u> BC	S. LK Examiner # 799 57/-272 Phone Z4/1	PAPER Where	tor Search Results (Circle One): DISK EMAIL have you searched so far? DWPI EPO JPO ACM IBM TDB CHARLES
Serial#	9 /885, 9	IEEE IEEE	INSPEC SPI Other Gongle Draw
A "Fast & Focused" S meet certain criteria. http://ptoweb/patents.	Search is completed in 2- The criteria are posted /stic/stic-tc2100.htm.	In ElC2100 and on the E	EIC2100 NPL Web Page at Se Complete by THANKS Refining the desired focus of this search? Please
include the concepts, the topic. Please atta relevant art you have	synonyms, keywords, a ach a copy of the abstrac	acronyms, definitions, str ct, background, brief sur	ategies, and anything else that helps to describe nmary, pertinent claims and any citations of
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Date Completed

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, .	-,,			LAN.		-4

Questions about the scope or the results of the search? Contact the EIC searcher or contact:

Anne Hendrickson, EIC 2100 Team Leader 272-3490, RND 4B28

/o	luntary Results Feedback Form
>	I am an examiner in Workgroup: Example: 2133
>	Relevant prior art found, search results used as follows:
	102 rejection
	103 rejection
	Cited as being of interest.
	Helped examiner better understand the invention.
	Helped examiner better understand the state of the art in their technology.
	Types of relevant prior art found:
	☐ Foreign Patent(s)
	 Non-Patent Literature (journal articles, conference proceedings, new product announcements etc.)
Þ	Relevant prior art not found:
	Results verified the lack of relevant prior art (helped determine patentability).
	Results were not useful in determining patentability or understanding the invention.
Co	omments:

Drop off or send completed forms to STIC/EIC2100 RND, 4B28



Description Set Items SEARCH?? OR SEARCHING OR FIND? ? OR FINDING OR FOUND OR RE-S1 412774 TRIEVE? ? OR RETRIEVING OR RETRIEVAL OR QUERY OR QUERIES OR Q-UERYING KEYWORD? ? OR PHRASE? ? OR TERM? ? OR WORD? ? S2 ATTRIBUTE? ? OR CHARACTERISTIC? ? OR PROPERTY OR PROPERTIES S3 1714511 OR METADATA SCALE? ? OR SCALING OR SCORE? ? OR SCORING OR WEIGHT?? OR -S4 1044461 WEIGHTING ORDER?? OR ORDERING OR SORT?? OR SORTING \$5 749917 S1 AND S2 AND S3 AND S4 AND S5 40 S6 S6 AND IC=G06F S7 23 IDPAT (sorted in duplicate/non-duplicate order) 23 S8 IDPAT (primary/non-duplicate records only) S9 23 File 347: JAPIO Nov 1976-2005/Aug(Updated 051205) (c) 2005 JPO & JAPIO File 350:Derwent WPIX 1963-2006/UD,UM &UP=200602 (c) 2006 Thomson Derwent

9/5/1 (Item 1 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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017433665

WPI Acc No: 2005-757344/200577 Related WPI Acc No: 2006-020070

XRAM Acc No: C05-231131 XRPX Acc No: N05-624936

Procuring biological content on electronic file, by interfacing user with server that accesses medium with files of targets, inputting request to generate biological attribute extracts, generating hierarchical output based on extracts

Patent Assignee: INVITROGEN CORP (INVI-N)

Inventor: LIANG F

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week US 20050240352 A1 20051027 US 2004830074 A 20040423 200577 B

Priority Applications (No Type Date): US 2004830074 A 20040423

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 20050240352 A1 36 G06F-019/00

Abstract (Basic): US 20050240352 A1

NOVELTY - Procuring (M1) biological content and their products/services listed on electronic inventory file comprising interfacing by user through user terminals and bi-directional communication connections with target item server which accesses electronic storage medium having files comprising grouping of target items, inputting request to generate extracts of biological attribute, generating page having hierarchical menu output based on extracts, is new.

DETAILED DESCRIPTION - Procuring (M1) biological content and their products and/or services listed on an electronic inventory file, where the inventory file is stored on one or more electronic storage medium which comprises several files comprising one or more segregated sundry grouping of target items, involves:

- (a) interfacing by one or more user through user terminals and bi-directional communication connections with one or more target item server which accesses the electronic storage medium, where extracts comprising one or more associated biological **attribute** are generated in the server for the target items in the electronic storage medium through an appropriate request;
 - (b) inputting a request to generate the extracts;
 - (c) retrieving the extracts; and
- (d) generating a page comprising one or more hierarchical menu output based on such extracts that provides one or more user, one or more subset of the target items stored on the electronic medium, where the one or more menu sorts the target items in the subset into a user accessible file of target items based on a empirical measure of similarity of the associated biological attributes for the sorted target items, and where the one or more hierarchical menu output display page identifies the target items sorted into each file which have one or more associated biological attribute in common to enable one or more user to differentiate products and/or services of interest stored on the electronic storage medium and to procure the differential products by activating an appropriate graphic user interface (GUI) comprising the displayed output page.

INDEPENDENT CLAIMS are also included for the following:

(1) a server (I) configuration for carrying out (M1); and (2) offering (M2) a product or service to a user in a remote location, involves remotely providing an electronic data server to the user, receiving an input from the user, processing the input to produce a first output, interfacing one or more public consortium database with one or more database proprietary to an offerer of the product or service, selecting a first product or service or a link or description of a first product or service to create an extract, and outputting the extract to the user.

USE - (M1) or (I) is useful for procuring biological content and their products and/or services listed on an electronic inventory file. The products and/or services are biologically related products and/or services, where the biologically related products are chosen from cloned nucleic acid inserts comprising a structural gene or transcriptional unit, bioassays, labeling and detection dyes, vectors, antibodies, peptides, nucleic acids, enzymes, nucleotides, buffers, cells media, selection molecules, expression systems, lipids, transfection reagents, electrophoresis products, separation column, affinity compounds, membranes, open reading frames (ORFs), DNA and RNA primers and proteins (claimed).

ADVANTAGE - (M1) efficiently **searches** and extracts relevant data. (M1) enables linking of biological information to E-commerce through effective information browsing, processing and reporting.

pp; 36 DwgNo 0/16

Title Terms: BIOLOGICAL; CONTENT; ELECTRONIC; FILE; INTERFACE; USER; SERVE; ACCESS; MEDIUM; FILE; TARGET; INPUT; REQUEST; GENERATE; BIOLOGICAL; ATTRIBUTE; EXTRACT; GENERATE; HIERARCHY; OUTPUT; BASED; EXTRACT

Derwent Class: B04; D16; S05; T01

International Patent Class (Main): G06F-019/00

International Patent Class (Additional): G01N-033/48; G01N-033/50

File Segment: CPI; EPI

9/5/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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017135672

WPI Acc No: 2005-460017/200547

XRPX Acc No: N05-373724

Method and system of public communication source guiding Patent Assignee: JIAWA SCI & TECHNOLOGY CO LTD NANJING (JIAW-N)

Inventor: HUANG H; LU S; ZHOU H

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week CN 1598489 A 20050323 CN 200441954 A 20040914 200547 B

Priority Applications (No Type Date): CN 200441954 A 20040914

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

CN 1598489 A G01C-021/26

Abstract (Basic): CN 1598489 A

NOVELTY - The invention is a method for public resource navigation, based on the computer system for public traffic resources databank, it designs data structure storage and **searching** data joint, the storing mode of data structure for point in databank is mainly stored in two data tables, namely the point basic **attributes** table and information table of relative station.

DETAILED DESCRIPTION - The **attributes** stored in the point basic information table has: point name, **searching** key **word**, point sketch map, type and other basic **attributes**; the joint is bonded with point data, and arranges with **ordering** joint, the **ordering** joint is made up of three parts: the number of this joint, the **weight** of the distance between the two joints from this joint to the next joint and the next joint; acquires all the relative information from the two data tables, and they are displayed on the web.

DwgNo 0/1

Title Terms: METHOD; SYSTEM; PUBLIC; COMMUNICATE; SOURCE; GUIDE

Derwent Class: T01

International Patent Class (Main): G01C-021/26

International Patent Class (Additional): G06F-017/30; G08G-001/00

File Segment: EPI

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(Item 4 from file: 350)
DIALOG(R) File 350: Derwent WPIX
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              **Image available**
016430355
WPI Acc No: 2004-588272/200457
XRPX Acc No: N04-465590
  Document retrieval device calculates score of document by multiplying
  number of lexicon with output of collation unit which collates keyword output from user's terminal with keyword received by lexicon, load
  coefficient
Patent Assignee: MITSUBISHI ELECTRIC CORP (MITQ )
Number of Countries: 001 Number of Patents: 001
Patent Family:
               Kind
Patent No
                       Date
                                Applicat No
                                                Kind
                                                        Date
                     20040819 JP 200324524
JP 2004234516 A
                                                 Α
                                                      20030131
                                                                 200457 B
Priority Applications (No Type Date): JP 200324524 A 20030131
Patent Details:
Patent No Kind Lan Pg
                           Main IPC
                                        Filing Notes
JP 2004234516 A
                    12 G06F-017/30
Abstract (Basic): JP 2004234516 A
        NOVELTY - An evaluation unit (19) calculates score of the
    document by multiplying the number of lexicon with the output of a
    collation unit (18) which collates the keyword output from user's terminal with keyword received by the lexicon, load coefficient
    produced by comparing various document with respect to recording
    content. An order form is presented to the user based on the
    calculated score .
         USE - For retrieval of document using personal computer (PC),
    personal digital assistant (PDA), mobile telephone.
        ADVANTAGE - Searches desired document effectively, without
    performing special setting operation.
        DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of
    the document retrieval device. (Drawing includes non-English language
    text).
        load coefficient determination unit (15)
        document characteristic analysis unit (16)
        document characteristics storage (17)
        collation unit (18)
        document evaluation unit (19)
        pp; 12 DwgNo 1/12
Title Terms: DOCUMENT; RETRIEVAL; DEVICE; CALCULATE; SCORE; DOCUMENT; MULTIPLICATION; NUMBER; OUTPUT; COLLATE; UNIT; COLLATE; KEYWORD; OUTPUT
  ; USER; TERMINAL; KEYWORD ; RECEIVE; LOAD; COEFFICIENT
Derwent Class: T01
International Patent Class (Main): G06F-017/30
File Segment: EPI
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9/5/6 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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015580913 **Image available**
WPI Acc No: 2003-643070/200361

Searching method and system based on example for deciding similarity Patent Assignee: POSCO (POSC-N); UNIV POHANG SCI & TECHNOLOGY (UYPO-N); POSTECH FOUND (POST-N)

Inventor: KIM J S; KWON O U; LEE J H; PARK J S; PI Y J; SONG N G Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No Kind Applicat No Kind Date Week Date KR 2003039576 A 20030522 KR 200170541 20011113 200361 B Α JP 2003281186 A 20031003 JP 2002322059 20021106 200367 Α

Priority Applications (No Type Date): KR 200170541 A 20011113 Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
KR 2003039576 A 1 G06F-017/30
JP 2003281186 A 14 G06F-017/30

Abstract (Basic): KR 2003039576 A

NOVELTY - A **searching** method and system based on an example for deciding similarity is provided to rapidly and exactly determine identification and similarity of related techniques.

DETAILED DESCRIPTION - A related technique document is inputted in a related document input unit(311) of an index unit(310). A paragraph is divided by a structural characteristic of the inputted related technique document, and a keyword is extracted in the first extracting unit(312) according to divided paragraphs. A weight value in each paragraph with respect to the extracted keyword is obtained, and a keyword and a weight value thereof are expressed as a unit vector in the first word vector expression unit(313). The keyword and a weight value expressed as a unit vector are stored in a unit vector storing unit(314). An example document having an example technique is inputted in an example document input unit(321). A paragraph is divided in accordance with a structural characteristic in the inputted example document, and a keyword is extracted in the second keyword extracting unit(322) according to divided paragraphs. A weight value is obtained in each paragraph, and a keyword and a weight value thereof are expressed as a unit vector in the second word vector expression unit(323). A similarity calculation unit(324) obtains a similarity between corresponding paragraphs with an example document and a related technique document, and obtains a similarity between the example document and a related technique document using a similarity between paragraphs. A display unit(325) sorts related technique documents in ascending powers of the obtained similarity and supplies the documents for a user.

pp; 1 DwgNo 1/10

Title Terms: SEARCH; METHOD; SYSTEM; BASED; EXAMPLE; DECIDE; SIMILAR Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

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(Item 11 from file: 350)
9/5/11
DIALOG(R) File 350: Derwent WPIX
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             **Image available**
013765703
WPI Acc No: 2001-249914/200126
XRPX Acc No: N01-178241
  Dictionary production assistance apparatus for use during processing of
  Japanese language documents, evaluates characteristics of each bigram
  using evaluation scale representing degree of importance
Patent Assignee: HITACHI LTD (HITA )
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No
              Kind
                     Date
                              Applicat No
                                             Kind
                                                    Date
                                                              Week
JP 2001043226 A
                   20010216 JP 99219562
                                                  19990803
                                                             200126 B
Priority Applications (No Type Date): JP 99219562 A 19990803
Patent Details:
Patent No Kind Lan Pg
                         Main IPC
                                      Filing Notes
                    10 G06F-017/28
JP 2001043226 A
Abstract (Basic): JP 2001043226 A
        NOVELTY - A collecting unit (1A) collects bigrams present in input
    document data (1011) and counter counts the number of occurrence of
    bigrams in collector data. An evaluating unit evaluates
    characteristics of each bigram using evaluation scale representing
    degree of importance. A display unit (106) displays evaluated bigrams
    that satisfy predefined conditions during evaluation in order of
    degree of importance.
        DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for
    recording medium.
        USE - For dictionary production assistance for use during
    processing of Japanese language documents, for production of index
    vocabulary in information retrieval, and for production of machine
    translation dictionary.
        ADVANTAGE - By producing dictionary based on degree of importance
    of bigrams, common bigrams present in document data with high degree of
    coincidence are removed automatically, hence production efficiency of
    dictionary with essential words is enhanced.
        DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of
    word dictionary production assistance apparatus. (Drawing includes
    non-English language text).
        Collecting unit (1A)
        Display unit (106)
        Input document data (1011)
        pp; 10 DwgNo 1/9
Title Terms: DICTIONARY; PRODUCE; ASSIST; APPARATUS; PROCESS; JAPAN;
  LANGUAGE; DOCUMENT; EVALUATE; CHARACTERISTIC; EVALUATE; SCALE;
  REPRESENT; DEGREE; IMPORTANT
Derwent Class: P86; T01; W04
International Patent Class (Main): G06F-017/28
International Patent Class (Additional): G06F-017/22; G06F-017/27;
  G06F-017/30 ; G10L-015/18
File Segment: EPI; EngPI
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(Item 12 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.
013251186
              **Image available**
WPI Acc No: 2000-423069/200036
XRPX Acc No: N00-315724
  Characterizing term extraction method in computer, involves sorting
  extracted terms according to generated moduli and accepting terms
  with greatest moduli as characteristic keyword of documents content
Patent Assignee: JUSTSYSTEM PITTSBURGH RES CENT INC (JUST-N)
Inventor: KANTROWITZ M
Number of Countries: 090 Number of Patents: 002
Patent Family:
Patent No
               Kind
                       Date
                                Applicat No
                                                 Kind
                                                         Date
                                                                   Week
               A1 20000608
                     20000608 WO 99US25686
20000619 AU 200019073
                                                                  200036
                                                  Α
                                                       19991101
WO 200033215
                                                  Α
                                                       19991101
                                                                  200044
AU 200019073
                Α
Priority Applications (No Type Date): US 98201569 A 19981130
Patent Details:
Patent No Kind Lan Pg
                            Main IPC
                                         Filing Notes
WO 200033215 A1 E 16 G06F-017/30
   Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN
   CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
   KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
   Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
   IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
AU 200019073 A
                         G06F-017/30
                                        Based on patent WO 200033215
Abstract (Basic): WO 200033215 Al
         NOVELTY - Occurrences of each term extracted from document is
    counted to establish a frequency value for each term . The characters
    in each term is counted. The frequency value for each term or
    monotonic function is multiplied by character count or monotonic
    function to form modulus for each term . The terms are sorted
    according to the moduli and moduli is accepted as characteristic
    keyword of the document's content.
                                                           weighting , for
         USE - In computer, world wide web for term
    information retrieval applications such as document retrieval,
    cross-language information retrieval , keyword extraction, document routing, classification, categorization, clustering, document
    filtering, query expansion, chapter, paragraph and sentence segmentation, spelling correction, term, query and document
                                                     query and document
    similarity metrics and text summarization.
         ADVANTAGE - Size of indexes in the information retrieval
    algorithm is reduced. Document summarized is easy to implement and use
    and requires only less memory. The method is scalable because it does
    not rely on information outside the document and so does not consume
    more resources as the number of documents increases. So the method is highly suitable for distributed information retrieval applications.
    DESCRIPTION OF DRAWING(S) - The figure shows the flow diagram explaining the computer program for implementing the characterizing
    terms extraction method.
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pp; 16 DwgNo 1/1 Title Terms: **TERM** ; EXT

Title Terms: TERM; EXTRACT; METHOD; COMPUTER; SORT; EXTRACT; TERM; ACCORD; GENERATE; MODULUS; ACCEPT; TERM; GREATER; MODULUS;

CHARACTERISTIC ; KEYWORD ; DOCUMENT; CONTENT

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

9/5/15 (Item 15 from file: 347)

DIALOG(R) File 347: JAPIO

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07614748 **Image available**

INFORMATION RETRIEVING DEVICE, INFORMATION RETRIEVING METHOD AND

INFORMATION RETRIEVING PROGRAM

PUB. NO.: 2003-108595 [JP 2003108595 A]

PUBLISHED: April 11, 2003 (20030411)

INVENTOR(s): KIREGAWA MASARU TAMURA TAKAYUKI

APPLICANT(s): MITSUBISHI ELECTRIC CORP

KIREGAWA MASARU

APPL. NO.: 2001-302623 [JP 2001302623] FILED: September 28, 2001 (20010928)

INTL CLASS: G06F-017/30

ABSTRACT

PROBLEM TO BE SOLVED: To solve a problem of requiring a long time for work when the number of retrieval results increases for requiring a user to successively check validity of the respective retrieval results since order of these retrieval results does not always coincide with validity in a retrieval purpose when obtaining a plurality of retrieval results. SOLUTION: A character string having the same attribute as a retrieving keyword and a character string having an attribute different from the retrieving keyword are extracted from a Web page gathered by a WWW information gathering part 24, and a score of the Web page is set according to a description degree of the character string to the Web page.

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9/5/17 (Item 17 from file: 347)

DIALOG(R) File 347: JAPIO

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07001570 **Image available**

METHOD AND DEVICE FOR ELECTRONIC MAP RETRIEVAL AND RECORDING MEDIUM WITH RECORDED ELECTRONIC MAP RETRIEVING PROGRAM

PUB. NO.: 2001-229182 [JP 2001229182 A]

PUBLISHED: August 24, 2001 (20010824)

INVENTOR(s): FUKAYA KOJI

APPLICANT(s): HITACHI ENG CO LTD

APPL. NO.: 2000-039795 [JP 200039795] FILED: February 14, 2000 (20000214)

INTL CLASS: G06F-017/30; G06T-011/60; G09B-029/00; G09B-029/10;

G01C-021/00

ABSTRACT

PROBLEM TO BE SOLVED: To provide an electronic map **retrieval** system which has high **retrieval** precision and can correct a display position.

SOLUTION: This device is provided with a **retrieval** means 32 which computes **property** data **retrieved** by decomposing a **retrieval** key **word** into elements and **weighting** them, and rates of matching, a candidate plate list display means 33 which lists and displays the **retrieved property** data as candidate places in the decreasing **order** of the matching rates, a map display means 34 which displays a map according to the candidate place list, a position correcting means 35 which corrects the position of a target item position mark displayed on the **retrieved** map, and a correction position storage means 23 which stores the corrected position on the map.

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(Item 18 from file: 347)

DIALOG(R) File 347: JAPIO

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Image available 06807137 DOCUMENT CLASSIFICATION MANAGEMENT SYSTEM

2001-034621 [JP 2001034621 A] February 09, 2001 (20010209) PUB. NO.:

PUBLISHED: INVENTOR(s): MIHARA TAKEHIDE

KAMIYOSHI TAKUMA MARUYAMA TAKEO

APPLICANT(s): HITACHI LTD

11-204224 [JP 99204224] APPL. NO.: July 19, 1999 (19990719) FILED: G06F-017/30 ; G06F-017/21 INTL CLASS:

ABSTRACT

PROBLEM TO BE SOLVED: To facilitate the document registration by automatic classification and to improve the hit rate at the time of document retrieval by comparing a user word in a document and the name of a classification node and classifying them into a corresponding classification node layers, and presenting the result to user. SOLUTION: A classification node management module 101 which receives a document relative object generation request from a user interface module 100 generates a document relative object, sets the classification node ID of a relative source and the document ID of a relative destination as properties of the document relative object, and also sets a calculated or specified importance score . A document retrieval request is received from the module 100, the document relative object having the classification node ID of a **retrieval** object classification node is **retrieved** from a document management database and a document object having the document ID of the hit document relative object is retrieved from the document management database; and retrieved documents are sorted according to the importance scores and a retrieval hit document list is presented.

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9/5/19 (Item 19 from file: 347)

DIALOG(R) File 347: JAPIO

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06097818 **Image available**
DOCUMENT RETRIEVAL DEVICE

PUB. NO.: 11-039337 [JP 11039337 A] PUBLISHED: February 12, 1999 (19990212)

INVENTOR(s): NOMOTO MASAKO
NOGUCHI NAOHIKO
SUGANO YUJI
SATO MITSUHIRO

INABA MITSUAKI FUKUSHIGE TAKAO

APPLICANT(s): MATSUSHITA ELECTRIC IND CO LTD

APPL. NO.: 09-198120 [JP 97198120] FILED: July 24, 1997 (19970724)

INTL CLASS: **G06F-01**7/30

ABSTRACT

PROBLEM TO BE SOLVED: To show the effectiveness of a **word** and cooccurence which are designated and to accurately **retrieve** a document which is closer to a **retrieval** intention by extracting an **attribute** about an appearance tendency as well as a **word** and cooccurence from a document.

SOLUTION: An input analyzing means 19 analyzes a retrieval condition, segments a word and presents cooccurrence consisting of words that have specific cooccurence relation to a user. A word collating means 21 collates each word that is extracted from the retrieval condition with a word stored in a word frequency storing means 16 based on respective weights of a word designated by the user and its appearance positional level. A cooccurence information collating means 22 collates cooccurence extracted from the retrieval condition with a cooccurence frequency storing means 17 based on respective weights of cooccurence designated by the user, its appearance positional level and its cooccurence level. A document order deciding means 23 integrates collation results that are performed by the means 21 and 22 in a document unit, decides the order of each document and presents a result to the user through an input-output controlling means.

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9/5/20 (Item 20 from file: 347)

DIALOG(R) File 347: JAPIO

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05458664 **Image available**
SIMILAR INSTANCE **RETRIEVAL** DEVICE

PUB. NO.: 09-073464 [JP 9073464 A] PUBLISHED: March 18, 1997 (19970318)

INVENTOR(s): OKAMOTO AOSHI SATO TAKESHI

APPLICANT(s): FUJITSU LTD [000522] (A Japanese Company or Corporation), JP

(Japan)

APPL. NO.: 07-229774 [JP 95229774] FILED: September 07, 1995 (19950907)

INTL CLASS: [6] G06F-017/30

JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications)

ABSTRACT

PROBLEM TO BE SOLVED: To **retrieve** a similar instance in consideration of the similarity of the **attribute** by registering **attribute** information in a database, extracting a key **word** and taking the **attribute** information out when a new instance is given, and outputting past instances in decreasing **order** of the similarity.

SOLUTION: A retrieval system 1 extracts key word from the problem part of a given instance to generate a key word number table 5, takes a key word number out as to a key word extracted corresponding to an instance number and registers it in a key word table 6, and registers the number of key word numbers extracted from instances corresponding to category numbers and the total numbers by categories in an instance quantity table 8, and an attribute information generating means 2 calculates weight according to the instance quantity table 8. Then a similarity generating means 3 generates similarity according to those pieces of information, sorts the information in the decreasing order of the generated similarity, and outputs the categories, similarity, etc., of past instances.

(Item 21 from file: 347) 9/5/21

DIALOG(R) File 347: JAPIO

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Image available

ANALOGOUS KNOWLEDGE RETRIEVING METHOD USING GROUP KNOWLEDGE

02-220176 [JP 2220176 A] September 03, 1990 (19900903) PUB. NO.: PUBLISHED:

INVENTOR(s): KUWABARA SATOSHI

APPLICANT(s): NIPPON TELEGR & TELEPH CORP <NTT> [000422] (A Japanese

Company or Corporation), JP (Japan)

01-041449 [JP 8941449] APPL. NO.:

February 21, 1989 (19890221) FILED:

[5] **G06F-015/40** INTL CLASS:

JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications); 13.1

(INORGANIC CHEMISTRY -- Processing Operations)
Section: P, Section No. 1132, Vol. 14, No. 525, Pg. 97, JOURNAL:

November 19, 1990 (19901119)

ABSTRACT

PURPOSE: To newly obtain more accurate knowledges by replacing each partial structure of a structure to be designed with another partial structure of a group table in order to retrieve the analogous knowledges.

CONSTITUTION: A group table 4-5 is provided into an analogical processing part 4 to accurately **retrieve** the analogous knowledges, and plural partial structures have the same **characteristics** and same actions in of the chemical reaction. Thus any partial structure has approximately same chemical reactions within a group. The data on the group are used for retrieval of the analogous knowledges. Thus it is regarded that other partial structures included in the table 4-5 are analogous to each other. Then the **score** of analogousness is improved and the effect of analogy is also improved.

Items Description Set SEARCH?? OR SEARCHING OR FIND? ? OR FINDING OR FOUND OR RE-1964942 S1 TRIEVE? ? OR RETRIEVING OR RETRIEVAL OR QUERY OR QUERIES OR Q-**UERYING** KEYWORD? ? OR PHRASE? ? OR TERM? ? OR WORD? ? 834262 S2 ATTRIBUTE? ? OR CHARACTERISTIC? ? OR PROPERTY OR PROPERTIES 933758 s_3 OR METADATA SCALE? ? OR SCALING OR SCORE? ? OR SCORING OR WEIGHT?? OR -S4 826121 WEIGHTING ORDER ?? OR ORDERING OR SORT ?? OR SORTING 1352808 S5 S1 (30N) S2 (30N) S3 (30N) S4 (30N) S5 WEB OR WEBPAGE? ? OR WEBSITE? ? OR ONLINE OR ON()LINE OR I-S6 1320 S8 261104 NTERNET? ? OR INTRANET? EXTRANET? ? OR WWW OR WORLDWIDE()WEB S6 (30N) S8 S9 113 S9 AND IC=G06F S10 81 S11 1252008 FILE? ? OR DOCUMENT? ? OR ARTICLE? ? OR WEBPAGE? ? OR WEBS-ITE? 19899 S11 (3N) S3 S12 22 S1 (10N) S2 (30N) S12 (30N) S4 (30N) S5 S13 S13 AND IC=G06F S14 17 IDPAT (sorted in duplicate/non-duplicate order)
IDPAT (primary/non-duplicate records only) S15 17 S16 17 File 348: EUROPEAN PATENTS 1978-2005/Dec W04 (c) 2005 European Patent Office File 349:PCT FULLTEXT 1979-2005/UB=20051229,UT=20051222

(c) 2005 WIPO/Univentio

(Item 1 from file: 348) 16/5,K/1 DIALOG(R) File 348: EUROPEAN PATENTS (c) 2005 European Patent Office. All rts. reserv. 01826985 Document retrieval apparatus Dokumentwiederauffingdungsvorrichtung Appareil de recouvrement de documents PATENT ASSIGNEE: KOKUSAI DENSHIN DENWA CO., LTD, (592872), 3-2, Nishi-shinjuku 2-Chome, Shinjuku-ku Tokyo, (JP), (Applicant designated States: all) Aoki, Keiko c/o KDDI R&D Laboratories Inc., 1-15 Ohara 2-chome, Kamifukuoka-shi Saitama, (JP) Matsumoto, Kazunori c/o KDDI R&D Laboratories Inc., 1-15 Ohara 2-chome, Kamifukuoka-shi Saitama, (JP) Hashimoto, Kazuo KDDI R&D Laboratories Inc., 1-15 Ohara 2-chome, Kamifukuoka-shi Saitama, (JP) LEGAL REPRESENTATIVE: Skone James, Robert Edmund (50281), GILL JENNINGS & EVERY, Broadgate House, 7 Eldon Street, London EC2M 7LH, (GB) PATENT (CC, No, Kind, Date): EP 1486891 A2 041215 (Basic) EP 1486891 A3 050309 APPLICATION (CC, No, Date): EP 2004022290 980211; PRIORITY (CC, No, Date): JP 9741429 970212; JP 9767496 970306 DESIGNATED STATES: DE; FR; GB RELATED PARENT NUMBER(S) - PN (AN): EP 859330 (EP 98301003) INTERNATIONAL PATENT CLASS: G06F-017/30 ABSTRACT EP 1486891 A2 A document retrieval apparatus is connected to the network, and comprises a cluster database (122) for storing a cluster of node information linked for clustering the documents to a hierarchical tree structure based on degree of similarity in all documents. The apparatus can post to the posted end address in the node information encountered on the way to follow links of the cluster by means of the cluster database when the document is updated. Also, the apparatus selects the specific number of documents, assigns non-selected documents respectively to a leaf node to be similar to the documents in the cluster, and indicates to repeat recursively the said operations toward a direction of the leaf node of cluster. ABSTRACT WORD COUNT: 118 NOTE: Figure number on first page: 1 LEGAL STATUS (Type, Pub Date, Kind, Text): Application: 041215 A2 Published application without search report 041215 A2 Date of request for examination: 20041005 Examination: 050309 A3 Separate publication of the search report Search Report: 050420 A2 Inventor information changed: 20050228 050504 A2 Inventor information changed: 20050317 Change: Change: LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY: Word Count Available Text Language Update CLAIMS A (English) 200451 307 200451 (English) 4914 SPEC A Total word count - document A 5221 Total word count - document B Total word count - documents A + B 5221

INTERNATIONAL PATENT CLASS: G06F-017/30

^{...} SPECIFICATION list, and pointers indicating parent and child nodes.

The frequency table of keywords lists by **weighting** with keywords based on the degree of similarity. The **order** of priorities is the descending of weighting points. The **weighting** points is the points counted by **weighting** the structure of the document and the occurrence frequency of **keywords**.

The frequency table is created as follows. First, the documents are cut down by limited <code>keywords</code> of a noun and an undefined <code>word</code> from entire text resource of a document by unit of morphological analysis. Then, the <code>keywords</code> are <code>weighted</code>. The <code>weighting</code> is reflected by not only the occurrence frequency of <code>keywords</code>, but also the tag structure of <code>HTML</code> (Hyper Text Makeup Language) text source. Thus, the frequency table showing a <code>characteristic</code> of the <code>document</code> can be provided.

showing a characteristic of the document can be provided.

The weighting with keywords in frequency table of the node information is sure to reflect the all documents positioned in a lower layer of the node. And the retrieving keywords are compared with the frequency tables of the child nodes, and a route passing through...

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(Item 2 from file: 348)
16/5,K/2
DIALOG(R) File 348: EUROPEAN PATENTS
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01784564
Image processing method and image processing system
Bildverarbeitungsverfahren und Bildverarbeitungssystem
Procede de traitement d'image et systeme de traitement d'image
PATENT ASSIGNEE:
  CANON KABUSHIKI KAISHA, (542366), 3-30-2 Shimomaruko, Ohta-ku, Tokyo,
    (JP), (Applicant designated States: all)
INVENTOR:
 Kaneda, Kitahiro, c/o Canon Kabushiki Kaisha 3-30-2, Shimomaruko,
    Ohta-ku, Tokyo, (JP)
  Tanioka, Hiroshi, c/o Canon Kabushiki Kaisha 3-30-2, Shimomaruko,
    Ohta-ku, Tokyo, (JP)
  Usami, Akihiro, c/o Canon Kabushiki Kaisha 3-30-2, Shimomaruko, Ohta-ku,
    Tokyo, (JP)
  Ohta, Ken-ichi, c/o Canon Kabushiki Kaisha 3-30-2, Shimomaruko, Ohta-ku,
    Tokyo, (JP)
  Ito, Hirohiko, c/o Canon Kabushiki Kaisha 3-30-2, Shimomaruko, Ohta-ku,
   Tokyo, (JP)
  Kato, Shinichi, c/o Canon Kabushiki Kaisha 3-30-2, Shimomaruko, Ohta-ku,
    Tokyo, (JP)
  Akiba, Tomohiro, c/o Canon Kabushiki Kaisha 3-30-2, Shimomaruko, Ohta-ku,
 Tokyo, (JP)
Kanatsu, Tomotoshi, c/o Canon Kabushiki Kaisha 3-30-2, Shimomaruko,
    Ohta-ku, Tokyo, (JP)
 Misawa, Reiji, c/o Canon Kabushiki Kaisha 3-30-2, Shimomaruko, Ohta-ku,
    Tokyo, (JP)
  Terao, Yoshihide, c/o Canon Kabushiki Kaisha 3-30-2, Shimomaruko,
    Ohta-ku, Tokyo, (JP)
  Uzawa, Mitsuru, c/o Canon Kabushiki Kaisha 3-30-2, Shimomaruko, Ohta-ku,
    Tokyo, (JP)
LEGAL REPRESENTATIVE:
  Beresford, Keith Denis Lewis et al (28273), BERESFORD & Co. 16 High
   Holborn, London WC1V 6BX, (GB)
                                              040908 (Basic)
PATENT (CC, No, Kind, Date):
                              EP 1455284
                                         A2
                              EP 1455284
                                         A2
                              EP 1455284
                                         A3
                                              050608
                              EP 2004250943 040220;
APPLICATION (CC, No, Date):
PRIORITY (CC, No, Date): JP 200344299 030221
DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR;
  HU; IE; IT; LI; LU; MC; NL; PT; RO; SE; SI; SK; TR
EXTENDED DESIGNATED STATES: AL; HR; LT; LV; MK
INTERNATIONAL PATENT CLASS: G06K-009/20; G06F-017/30
ABSTRACT EP 1455284 A2
    This invention provides an image processing method which allows easy
  re-use of image information that is stored to minimize deterioration of
  image quality and the storage capacity. Storage means is searched for
  original digital data corresponding to each input image. If no original
  digital data is found, the input image is converted into vector data, and
  is stored as digital data in the storage means. A sheet including at
  least one of information associated with the found original digital data
 when the original digital data is found in the search step and
  information associated with digital data which is obtained by converting
  the image into the vector data in the vectorization step and is stored in
  the storage step when no original digital data is found in the search
  step is generated, thus providing a sheet that allows easy re-use.
ABSTRACT WORD COUNT: 141
NOTE:
  Figure number on first page: 19
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040908 A2 Published application without search report

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application:

040908 A2 Published application without search report Application: 050608 A2 International Patent Classification changed: Change:

20050420

050608 A3 Separate publication of the search report Search Report: LANGUAGE (Publication, Procedural, Application): English; English; English

Word Count

FULLTEXT AVAILABILITY: Available Text Language Update

200437 848 CLAIMS A (English) 200437 11061 SPEC A (English) Total word count - document A 11909 Total word count - document B Total word count - documents A + B 11909

...INTERNATIONAL PATENT CLASS: G06F-017/30

...SPECIFICATION layout information and font information extracted by the aforementioned method.

As a method of extracting keywords from text data contained in a document, for example, the entire text data is decomposed into words by, among others, morphological analysis. All words are sorted in accordance with their frequencies of use, and are selected as keywords in descending order of frequency of use. In order to extract more effective keywords, words may be compared with a keyword database, which is prepared in advance.

As for information of an ID, date, and author, if a file is found by a digital file search process, such information is acquired as

property information of that file .
 As for abstract information, the following method of generating an abstract of text data formed...

- ...method of calculating the importance level, a method of calculating the frequencies of occurrence of words contained in the entire text data, giving a high score to a word that appears frequently, and calculating the importance level of each sentence or clause as a...
- ...and font information to increase the importance level of that sentence, or to increase the scores of words included in that sentence, and the like may be used. Finally, an abstract...

(Item 3 from file: 348) 16/5,K/3 DIALOG(R) File 348: EUROPEAN PATENTS (c) 2005 European Patent Office. All rts. reserv. 01697975 Document retrieval system and question answering system Dokumentwiederauffindungssystem und Frage-Antwortsystem Systeme de recouvrement de documents et systeme de questions/reponses PATENT ASSIGNEE: MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (216883), 1006, Oaza-Kadoma, Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)

Nomoto, Masako, 7-18-504, Minamisumiyoshi, Tokorozawa-shi, Saitama 359-1125, (JP)

Sato, Mitsuhiro, 4-11-11, Miyanosato, Atsugi-shi, Kanagawa 243-0216, (JP) Suzuki, Hiroyuki, 4-22-10-501, Shimokodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa 211-0041, (JP)

LEGAL REPRESENTATIVE:

Grunecker, Kinkeldey, Stockmair & Schwanhaus, Maximilianstrasse 58, 80538 Munchen, (DE) Stockmair & Schwanhausser Anwaltssozietat (100721)

PATENT (CC, No, Kind, Date): EP 1391834 A2 040225 (Basic) APPLICATION (CC, No, Date): EP 2003018569 030818;

PRIORITY (CC, No, Date): JP 2002238031 020819; JP 2003189111 030630

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LI; LU; MC; NL; PT; RO; SE; SI; SK; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK INTERNATIONAL PATENT CLASS: G06F-017/30

ABSTRACT EP 1391834 A2

A document retrieval system capable of obtaining information requested by the user with a high degree of accuracy. In this system, the query input section 102 receives query input by the user. The keyword extraction section 104 analyzes the input query and extracts keywords. The keyword type assignment section 106 decides the type of each extracted keyword and assigns a keyword type. The question type decision section 108 decides the question type. The keyword classification section 110 classifies the keywords to which the keyword types are assigned into a major type and minor type with reference to the keyword classification rules stored in the keyword classification rule storage section 112. The document retrieval section 114 searches a document collection stored in the document storage section 116 using the classified keyword groups and obtains the document of the retrieved result.

ABSTRACT WORD COUNT: 140

NOTE:

Figure number on first page: 1

LEGAL STATUS (Type, Pub Date, Kind, Text):

040225 A2 Published application without search report Application: LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS A (English) 200409 2550 200409 10113 SPEC A (English) Total word count - document A 12663 Total word count - document B

Total word count - documents A + B 12663

INTERNATIONAL PATENT CLASS: G06F-017/30

...SPECIFICATION only documents including a tag <LOCATION> are extracted.

At this time, when the search question type as a result of the decision by the question type decision section 108...

- ...into account minor keywords, too, while limiting the search range to only documents including major **keywords** and having semantic attributes that match the search question type and obtain a retrieved result...
- ...has described the case where a search method using the search question type and semantic **attributes** in **documents** is combined with the first search method in Embodiment 1 shown in FIG.5 as...
- ...shown in FIG.6 or the third search method (ranking by layer including restrictiveness of **keywords**) in Embodiment 1 shown in FIG.8.

 Furthermore, this embodiment carries out a search in...
- ...this embodiment has described the case where the semantic attribute assignment section 202 assigns semantic attributes to document collections beforehand, as an example, but this embodiment is not limited to this and can also be adapted so as to assign semantic attributes to only document collections obtained after searching for document collections. It generally takes a considerable calculation time to...
- ...number of documents, and therefore adopting such a configuration makes it possible to assign semantic **attributes** to only necessary **documents** and streamline the processing.

Furthermore, this embodiment can also be adapted so as to search for documents whose semantic attribute values are normalized (document collection with normalized semantic attributes) as document collections. In this case, when, for example, "2000/6/30" is specified as a keyword documents to be retrieved to a

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16/5,K/6
             (Item 6 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
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01321702
System and method for information processing
System und Verfahren zur Informationsverarbeitung
Systeme et procede pour le traitement d'informations
PATENT ASSIGNEE:
  SONY CORPORATION, (214021), 7-35 Kitashinagawa 6-chome Shinagawa-ku,
    Tokyo 141, (JP), (Applicant designated States: all)
  Saito, Mari, c/o Sony Corporation, 7-35, Kitashinagawa 6-chome,
    Shinagawa-ku, Tokyo, (JP)
  Yamamoto, Noriyuki, c/o Sony Corporation, 7-35, Kitashinagawa 6-chome,
    Shinagawa-ku, Tokyo, (JP)
  Hourin, Hiroyuki, c/o Sony Corporation, 7-35, Kitashinagawa 6-chome,
    Shinagawa-ku, Tokyo, (JP)
  Ohmura, Kazunori, c/o Sony Corporation, 7-35, Kitashinagawa 6-chome,
    Shinagawa-ku, Tokyo, (JP)
LEGAL REPRESENTATIVE:
  Korber, Martin, Dipl.-Phys. et al (88321), Mitscherlich & Partner
    Patentanwalte Sonnenstrasse 33, 80331 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 1128276 A1 010829 (Basic)
                              EP 2001104031 010220;
APPLICATION (CC, No, Date):
PRIORITY (CC, No, Date): JP 200042303 000221; JP 200042305 000221; JP
    2000187152 000622
DESIGNATED STATES: DE; FR; GB
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: G06F-017/27; G06F-017/30
ABSTRACT EP 1128276 A1
     Disclosed is an information processing apparatus, an information
  processing method, and a program storage medium which can present
  associated information related to a document to be processed to a user.
  An accumulation block accumulates a database of associated information. A
  presentation block presents to the user the associated information
  corresponding to the document to be processed at occurrence of an event.
  An agent control block controls the manner of displaying an agent for
  example.
ABSTRACT WORD COUNT: 76
NOTE:
  Figure number on first page: 1
LEGAL STATUS (Type, Pub Date, Kind, Text):
 Application:
                  010829 A1 Published application with search report
                  020403 Al Date of request for examination: 20020124
 Examination:
 Examination:
                  041222 Al Date of dispatch of the first examination
                            report: 20041108
LANGUAGE (Publication, Procedural, Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text
               Language
                           Update
                                     Word Count
     CLAIMS A
                (English)
                           200135
                                      1232
                                      9553
     SPEC A
                (English)
                           200135
Total word count - document A
                                     10785
Total word count - document B
                                         O
Total word count - documents A + B
                                     10785
INTERNATIONAL PATENT CLASS: G06F-017/27 ...
... G06F-017/30
```

...SPECIFICATION processing block 3 and performs a morphemic analysis on the extracted text data to extract **keywords** . The document content

processing block 4 obtains the occurrence frequency of the **keywords** and the distribution status over plural documents and computes the weight of the **keyword** of each document group by use of the tf (center dot) idf method for example...

...preparation block 5 creates a database of the attribute information and the weights of all **keywords** included in each of the documents grouped by the **document attribute** processing block 3. To be more specific, as shown in FIG. 4, the grouped documents are sorted in a time dependent manner and then the weights of all **keywords** 1 through n included in the grouped documents are sorted in a time dependent manner...

...in the storage block 29. In FIG. 4, weight A1 denotes the weight value of **keyword** 1 in document A and weight B2 denotes the weight value of **keyword** 2 in document B for example. Further, if **keyword** 1 is not included in document B, weight B1 becomes 0.

In step S6, the...

...5 selects a keyword with its weight being higher than a predetermined threshold as a **search** keyword (an important word) and selects the number of keywords specified in the descending **order** of weights, supplying the selected keywords to the associated information **retrieval** block 6. By use of the **search** keyword supplied from the document feature database preparation block 5 as a **search** condition, the associated information **retrieval** block 6 accesses a **search** engine on the Internet to retrieve search results and outputs the URL and title of

(Item 7 from file: 348) 16/5,K/7 DIALOG(R) File 348: EUROPEAN PATENTS (c) 2005 European Patent Office. All rts. reserv. 01289039 Document search system with automatic field selection and field controlled document ranking mit automatischen Feldauswahl Dokumentweiderauffindunssystem feldgesteuerte Dokumentordnung Systeme de recherche de documnets avec selection de zones automatique et rangement de documents controllee par zones PATENT ASSIGNEE: Eidetica B.V., (3197070), Twinning Center (Matrix II), Kruislaan 400, 1098 SM Amsterdam, (NL), (Applicant designated States: all) INVENTOR: Groenink, Annius Victor, 684, Keizersgracht, 1017 ET Amsterdam, (NL) LEGAL REPRESENTATIVE: Brookhuis, Hendrik Jan Arnold (79631), van Exter Polak & Charlouis B.V. P.O. Box 3241, 2280 GE Rijswijk, (NL) PATENT (CC, No, Kind, Date): EP 1107133 A1 APPLICATION (CC, No, Date): EP 2000204386 C EP 2000204386 001207; PRIORITY (CC, No, Date): NL 1013793 991208 DESIGNATED STATES: DE; GB; NL EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI INTERNATIONAL PATENT CLASS: G06F-017/30 ABSTRACT EP 1107133 A1 A document search system comprising data storage means, that contains at least a metadata collection having a collection of three-tuples (<metadata>, <fieldtype-id>, <document-idlist>), which metadata collection is obtained from a collection of documents and is composed of a number of fields, whereby a fieldtype-identifier <fieldtype-id> is assigned to each field, and in which metadata collection each three-tuple indicates that for all documents in the non-empty list of document identifiers <doc-id-list> the element <metadata> is metadata of a field identified by <fieldtype-id>. Further the search system comprises a search algorithm with a matching algorithm having as input a query, which query comprises at least an enumeration of pairs ((<target>, <weight>), <fieldtype-idlist>), in which pairs <weight> is a real number on the interval (0;1), and which matching algorithm has the metadata collection as input, and compares per <fieldtype-id> the values of <metadata> to the values of <target> in the query and
includes <weight> in the comparison, and which matching algorithm has as output a relevance collection comprising three-tuples (<target>, <fieldtype-id>, <doc-idlist>), which relevance collection contains per unique combination of <metadata> and <fieldtype-id> a list of document identifiers <doc-idlist> in which the identifiers identify documents that are considered sufficiently relevant with respect to the query by the matching algorithm. ABSTRACT WORD COUNT: 207 NOTE: Figure number on first page: 1 LEGAL STATUS (Type, Pub Date, Kind, Text): 010613 A1 Published application with search report Application: 020417 Al Date of request for examination: 20011009 Examination: Assignee: 051228 Al Transfer of rights to new applicant: Stork

3351 LB Papendrecht NL LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY:

Aerospace Group B.V. (7187650) 4, Industrieweg

Word Count Available Text Language Update (English) 200124 776 CLAIMS A SPEC A (English) 200124 3571 Total word count - document A 4347 Total word count - document B 0 Total word count - documents A + B 4347

INTERNATIONAL PATENT CLASS: G06F-017/30

- ...SPECIFICATION the input means, without a change of one of the elements (<target>,< weight >). This has as advantage that the user is enabled to make the search algorithm...
- ...the field types present in the metadata collection for each combination (<target>,< weight >) in <field type id-list>, in response to an addition via the input means of at least one target in the query . After an addition of a target, the user will usually search again in all field types, and only after that he will want to select one
- ...the output means all the document identifiers that are present in the filtered relevance collection, **sorted** by criteria based on the data given by the relevance collection on the individual field **metadata**. As such, the **documents** having the highest predicted relevance can be arranged on top of the list, and therefore easily be distinguished from the other documents.

The **sorting** thereby is advantageously done according to one of the function values r1, r2, r3, and...

- ...claim 9 it is noted that the field length may be calculated differently in each search system. If the notion of term is defined as a single word, the field length equals the number of words in the field. If the notion of term is defined as the words indicating a concept, the field length equals the number of...
- ...twice, viz. once as algebra and once as linear algebra.

 It is particularly advantageous to **sort** not according to a single criterion as mentioned above, but according to a staged **sorting** algorithm in which the number of stages is at least two and in which one

(Item 8 from file: 348) 16/5,K/8 DIALOG(R) File 348: EUROPEAN PATENTS (c) 2005 European Patent Office. All rts. reserv. 00947222 Document retrieval apparatus Dokumentwiederauffindungsvorrichtung Appareil de recouvrement de documents PATENT ASSIGNEE: KOKUSAI DENSHIN DENWA CO., LTD, (592872), 3-2, Nishi-shinjuku 2-Chome, Shinjuku-ku Tokyo, (JP), (applicant designated states: DE;FR;GB) INVENTOR: Aoki, Keiko, c/o KDDI R&D Laboratories Inc. 1-15 Ohara 2-chome, Kamifukuoka-shi Saitama, (JP) Matsumoto, Kazunori, c/o KDDI R&D Laboratories Inc. 1-15 Ohara 2-chome, Kamifukuoka-shi Saitama, (JP) Hashimoto, Kazuo c/o KDDI R&D Laboratories Inc., 1-15 Ohara 2-chome, Kamifukuoka-shi Saitama, (JP) LEGAL REPRESENTATIVE: Skone James, Robert Edmund (50281), GILL JENNINGS & EVERY Broadgate House 7 Eldon Street, London EC2M 7LH, (GB) PATENT (CC, No, Kind, Date): EP 859330 A1 980819 (Basic) APPLICATION (CC, No, Date): EP 98301003 980211; PRIORITY (CC, No, Date): JP 9741429 970212; JP 9767496 970306 DESIGNATED STATES: DE; FR; GB RELATED DIVISIONAL NUMBER(S) - PN (AN): (EP 2004022290) INTERNATIONAL PATENT CLASS: G06F-017/30

ABSTRACT EP 859330 A1

A document retrieval apparatus is connected to the network, and comprises a cluster database (122) for storing a cluster of node information linked for clustering the documents to a hierarchical tree structure based on degree of similarity in all documents. The apparatus can post to the posted end address in the node information encountered on the way to follow links of the cluster by means of the cluster database when the document is updated. Also, the apparatus selects the specific number of documents, assigns non-selected documents respectively to a leaf node to be similar to the documents in the cluster, and indicates to repeat recursively the said operations toward a direction of the leaf node of cluster.

ABSTRACT WORD COUNT: 118

LEGAL STATUS (Type, Pub Date, Kind, Text):
Examination: 040630 A1 Date of dispatch of the first examination

report: 20040514

Application: 980819 A1 Published application (A1with Search Report; A2without Search Report)

Change: 050504 Al Inventor information changed: 20050316

Change: 041110 A1 Application number of divisional application (Article 76) changed: 20040922

Change: 050420 A1 Inventor information changed: 20050228 Examination: 980819 A1 Date of filing of request for examination

980819 A1 Date of filing of request for examination: 980227

98022

Change: 990506 A1 Designated Contracting States (change)
LANGUAGE (Publication, Procedural, Application): English; English; FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS A (English) 9834 1141 SPEC A (English) 9834 5028 Total word count - document A 6169 Total word count - document B Total word count - documents A + B 6169

INTERNATIONAL PATENT CLASS: G06F-017/30

...SPECIFICATION list, and pointers indicating parent and child nodes. The frequency table of keywords lists by weighting with keywords based on the degree of similarity. The order of priorities is the descending of weighting points. The weighting points is the points counted by weighting the structure of the document and the occurrence frequency of keywords.

The frequency table is created as follows. First, the documents are cut down by limited <code>keywords</code> of a noun and an undefined <code>word</code> from entire text resource of a document by unit of morphological analysis. Then, the <code>keywords</code> are <code>weighted</code>. The <code>weighting</code> is reflected by not only the occurrence frequency of <code>keywords</code>, but also the tag structure of <code>HTML</code> (Hyper Text Makeup Language) text source. Thus, the frequency table showing a <code>characteristic</code> of the <code>document</code> can be provided. The <code>weighting</code> with <code>keywords</code> in frequency table of the node

The weighting with keywords in frequency table of the node information is sure to reflect the all documents positioned in a lower layer of the node. And the retrieving keywords are compared with the frequency tables of the child nodes, and a route passing through...

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16/5.K/9
             (Item 9 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2005 European Patent Office. All rts. reserv.
00433723
A method of information retrieval for a database system
Verfahren zur Informations-Wiedergewinnung fur ein Datenbanksystem
Methode de recherche documentaire pour un systeme de base de donnees
PATENT ASSIGNEE:
  International Business Machines Corporation, (200120), Old Orchard Road,
    Armonk, N.Y. 10504, (US), (applicant designated states: DE;FR;GB)
INVENTOR:
  Mitsui, Kinichi, 148 Futako, Takatsu-ku, Kawasaki-shi, Kanagawa-ken, (JP)
LEGAL REPRESENTATIVE:
  Moss, Robert Douglas (34141), IBM United Kingdom Limited Intellectual
    Property Department Hursley Park, Winchester Hampshire SO21 2JN, (GB)
PATENT (CC, No, Kind, Date): EP 420424 A2 910403 (Basic)
                              EP 420424 A3
EP 420424 B1
                                              921202
                                              971203
                              EP 90309707 900905;
APPLICATION (CC, No, Date):
PRIORITY (CC, No, Date): JP 89242421 890920
DESIGNATED STATES: DE; FR; GB
INTERNATIONAL PATENT CLASS: G06F-017/30
CITED PATENTS (EP A): DE 3901485 A; US 4358824 A
CITED REFERENCES (EP A):
  JOURNAL OF CHEMICAL INFORMATION AND COMPUTER SCIENCES vol. 15, no. 1,
   February 1975, pages 32 - 39 H. S. HEAPS 'Data Compression of Large Document Data Bases';
ABSTRACT EP 420424 A2
    A database comprises a sequential file 15 and a transposed file 11 in
  external memory. A query specifies various keywords, which are used to
  access the transposed file. Data concerning the various keywords, and
  especially identifiers for retrieval objects containing the keywords, are
  loaded into main storage. Inside main storage this information is
  rearranged, so as to be able to rank the retrieval objects in terms the
  keywords they contain. Identifiers from this ordered list can then be
  used to access information from the sequential file, with only retrieval
  objects with high query scores being accessed.
                                                    (see image in original
  document)
ABSTRACT WORD COUNT: 105
LEGAL STATUS (Type, Pub Date, Kind, Text):
                  910403 A2 Published application (Alwith Search Report
 Application:
                             ;A2without Search Report)
 Examination:
                  910403 A2 Date of filing of request for examination:
                             901213
 Search Report:
                  921202 A3 Separate publication of the European or
                             International search report
                  960626 A2 Date of despatch of first examination report:
 Examination:
                             960514
                  971203 B1 Granted patent
 Grant:
                  981028 B1 Date of lapse of the European patent in a
Lapse:
                             Contracting State: FR 980430
                  981125 B1 No opposition filed
LANGUAGE (Publication, Procedural, Application): English; English; English
FULLTEXT AVAILABILITY:
                                      Word Count
Available Text Language
                            Update
      CLAIMS B
                (English)
                            9711W4
                                        679
                                        677
      CLAIMS B
                 (German)
                            9711W4
      CLAIMS B
                            9711W4
                                        775
                 (French)
      SPEC B
                (English)
                            9711W4
                                       5344
Total word count - document A
Total word count - document B
                                       7475
```

7475

Total word count - documents A + B

INTERNATIONAL PATENT CLASS: G06F-017/30

... SPECIFICATION numerical attributes

Next, a method for utilizing a numerical attribute like publication year for quantitative **retrieval** is described, with reference to Figure 5. When calculating the score relative to a numerical...

...value to a certain value, the higher is its score.

With regard to the numerical attribute, a transposed file which relates each attribute value to each retrieval object may be prepared similarly as for keywords. In Figure 5, K3 denotes a numerical value attribute representing publication year (41). On the transposed file, the retrieval objects are arranged in the ascending or descending order of the attribute values, permitting high speed access in the ascending or descending order. This may be attained by making use of an existing technique like B-blocks.

Now, when a numerical attribute is generally used as a **retrieval** condition, the range of values influencing the **score** is wide, so that it is unavoidable to frequently access the external storage to access the overall range of the values influencing the **score** on the transposed file. When outputting only objects with high **scores**, there is a possibility that it is sufficient to access only the parts which give high **scores** where the record of the numerical attribute is concerned.

With regard to the access key...

...the numerical attribute, by utilizing a transposed file on which the retrieval object identifiers are **sorted** in the attribute **order** beforehand, the external storage is accessed sequentially from the part where the highest **score** may be obtained and, then, the retrieval may be ended at a point when the..

(Item 10 from file: 349) 16/5,K/10 DIALOG(R) File 349: PCT FULLTEXT (c) 2005 WIPO/Univentio. All rts. reserv. **Image available** 01304210 SYSTEM AND METHOD FRO DYNAMICALLY GENERATING A SELECTABLE SEARCH EXTENSION SYSTEME ET METHODE POUR GENERER DYNAMIQUEMENT UNE EXTENSION DE RECHERCHE SELECTIONNABLE Patent Applicant/Assignee: MICROSOFT CORPORATION, One Microsoft Way, Redmont, WA 98052, US, US (Residence), US (Nationality) Inventor(s): ANTHONY Colin R, 11207 123rd Lane, NE Apt. C-21, Kirkland, WA 98033, US, VAN DOK Cornelis K, 16818 S.E. 2nd Place, Bellevue, WA 98008, US, IWEMA Marieke, 10300 Rainer Avenue S., Seattle, WA 98178, US, Legal Representative: STROHM Scott B (et al) (agent), Shook, Hardy & Bacon L.L.P., 2555 Grand Blv., Kansas City, MI 64108-2613, US, Patent and Priority Information (Country, Number, Date):
Patent: WO 2005111868 A2 20051124 (WO 05111868) Application: WO 2004US24634 20040730 (PCT/WO US04024634) Priority Application: US 2004566947 20040503 Designated States: (All protection types applied unless otherwise stated - for applications 2004+) AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PL PT RO (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG (AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW (EA) AM AZ BY KG KZ MD RU TJ TM Main International Patent Class: G06F-017/30 Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 4293

English Abstract

A system and related techniques accept user-inputted search terms, for example to perform a search for files or other data or objects. Corresponding matches to those terms may be presented to the user in a "word-wheel"-type breakout list generated on the fly for groupings of hits by attributes or other criteria, as the system searches through the file system at the current level or point in the file system hierarchy. According to embodiments, when the search logic fails to locate a hit on the inputted search term at the current level or point in the file system hierarchy, an extension of the search to different levels or points in the file system hierarchy may be automatically generated, and for instance presented to the user as a selectable search box. That box may for example be highlighted to the user for easy selection. When the user does select the selectable search box, the user's search, for instance for files of type or extension ".doc" or ".memo", may be seamlessly extended to other files, folders, trees or other points or levels in the file system hierarchy. Search results may be continuously or dynamically updated as the user, for example, enters more characters or other data.

French Abstract

L'invention concerne un systeme et des techniques associees acceptant des termes de recherche saisis par un utilisateur pour effectuer, par exemple, une recherche de fichiers ou d'autres donnees ou d'autres

objets. Les objets correspondant a ces termes peuvent etre presentes a l'utilisateur dans une liste thematique de type "word wheel", generee a la volee, pour des groupements de correspondances, par attributs ou par autres criteres, alors que le systeme effectue des recherches dans le systeme de fichiers, au niveau ou au point actuel de la hierarchie de systemes de fichiers. En fonction des modes de realisation de l'invention, lorsque la logique de recherche n'arrive pas a localiser une correspondance pour le terme de recherche saisi sur le niveau actuel ou sur le point actuel de la hierarchie de systemes de fichiers, une extension de la recherche sur des niveaux ou des points differents de la hierarchie de systemes de fichiers peut etre automatiquement generee, et par exemple, peut etre presentee a l'utilisateur, en tant que pave de recherche selectionnable. Ce pave peut, par exemple, etre mis en evidence pour l'utilisateur, pour faciliter sa selection. Lorsque l'utilisateur selectionne le pave de recherche selectionnable, la recherche de l'utilisateur, par exemple de fichiers de type ou d'extension ".doc" ou ".memo", peut etre etendue sans coupure a d'autres fichiers, dossiers, arbres ou a d'autres points ou a d'autres niveaux de la hierarchie de systemes de fichiers. Les resultats de recherche peuvent etre mis a jour de maniere continue ou dynamique, lorsque l'utilisateur saisit, par exemple, plus de caracteres ou encore d'autres donnees.

Legal Status (Type, Date, Text)
Publication 20051124 A2 Without international search report and to be republished upon receipt of that report.
Main International Patent Class: G06F-017/30
Fulltext Availability:

Detailed Description

Detailed Description

- ... file size, or date created or modified. A user may at times also choose to **search** for files based on internal file corii@nt', such as desired text or numbers. The...
- ...within a large corporation or other organization. In other cases, a user may wish to **sort** or **search** through a collection or catalogue of musical, video or other media or file material. Some **search** tools and facilities have evolved in response to large- **scale** file **search** and other requirements.

For example, some applications and other packages may present the user with an input box type of **search** interface, where the user may enter **search** terms such as **file** extensions or other **attributes**, or in- **file** characters or text. As the **search**, for example through a local hard drive and associated file system, progresses, files which partly...

...attiributes or text may be displayed to the user to select or manipulate.

However, existing **search** tools may be constrained by certain limitations in usability or functionality. For instance, even such **search** tools as exist merely present the results gathered from **searching** the client or other file system at the current level or point in the file system hierarchy. So if no results are **found** in a given directory or folder, the user may be required to restart and reenter...

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(Item 11 from file: 349)
16/5,K/11
DIALOG(R) File 349: PCT FULLTEXT
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            **Image available**
01240860
SEARCH ENGINE WITH HIERARCHICALLY STORED INDICES
MOTEUR DE RECHERCHE AVEC INDEX A MEMORISATION HIERARCHIQUE
Patent Applicant/Assignee:
  OVERTURE SERVICES INC, 74 North Pasadena Avenue, Pasadena, CA 91103, US,
    US (Residence), US (Nationality), (For all designated states except:
    US)
Patent Applicant/Inventor:
  RISVIK Knut Magne, Sigrid Undsets vei 27, N-7023 Trondheim, NO, NO
    (Residence), NO (Nationality), (Designated only for: US)
  AASHEIM Yngve, Nedre Mollenberggate 76A, N-7043 Trondheim, NO, NO
    (Residence), NO (Nationality), (Designated only for: US)
  EGGE Tor, Fjordgata 16A, N-7010 Trondheim, NO, NO (Residence), NO
  (Nationality), (Designated only for: US)
PETTERSEN Havard, Elgesetergate 26A, N-7030 Trondheim, NO, NO (Residence)
    , NO (Nationality), (Designated only for: US)
Legal Representative:
  RUBIN Steven (agent), Brown Raysman Millstein Felder & Steiner LLP, 900
    Third Avenue, New York, NY 10022, US,
Patent and Priority Information (Country, Number, Date):
                        WO 200548069 A2 20050526 (WO 0548069)
  Patent:
                        WO 2004US37507 20041109 (PCT/WO US04037507)
  Application:
  Priority Application: US 2003705641 20031110
Designated States:
(All protection types applied unless otherwise stated - for applications
2004+)
  AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM
  DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
  LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO
  RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
  (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LU MC NL PL PT
  RO SE SI SK TR
  (OA) BF BJ CF CG CI CM GA GN GO GW ML MR NE SN TD TG
  (AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: G06F
Publication Language: English
Filing Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 5101
English Abstract
  A search engine comprising a crawler which crawls the WWW and stores
  pages found on the WWW in a database. An indexer indexes the pages in the
  database to produce a primary index. A document mapping section maps
  pages in the database into a plurality of tiers based on a ranking of the
  pages. The ranking may be based on portions of the pages which have a
  relatively higher value context. A processor produces a plurality of
  sub-indices from the primary index based on the mapping. The sub-indices
  are stored in a search node cluster. The cluster is a matrix of search
  nodes logically arranged in a plurality of rows and columns. Search nodes
  in the same column include the same sub-index. Search nodes in the same
```

French Abstract

search nodes.

Cette invention se rapporte a un moteur de recherche qui comprend un

row include distinct sub-indices. A search query received by a user is sent to a dispatcher which, in turn, forwards the query to the first tier of search nodes. A fall through algorithm is disclosed which indicates when the dispatcher should forward the search query to other tiers of

moteur de recherche Web qui parcourt le Web et memorise les pages trouvees sur le Web dans une base de donnees. Un indexeur indexe les pages dans la base de donnees pour produire un index primaire. Une section de cartographie de documents cartographie les pages dans la base de donnees en plusieurs niveaux sur la base d'un classement des pages. Ce classement peut etre base sur les parties des pages qui presentent un contexte de valeur relativement superieure. Un processeur produit plusieurs sous-index a partir de l'index primaire sur la base de la cartographie. Les sous-index sont memorises dans une grappe de noeuds de recherche. Cette grappe est constituee par une matrice de noeuds de recherche agences logiquement en plusieurs rangees et colonnes. Les noeuds de recherche de la meme colonne ont le meme sous-index. Les noeuds de recherche de la meme rangee ont des sous-index distincts. Une interrogation de recherche recue par un utilisateur est envoyee a un repartiteur qui, a son tour, transmet l'interrogation au premier niveau des noeuds de recherche. Cette invention contient un algorithme a transfert implicite qui indique a quel moment le repartiteur doit transferer l'interrogation de recherche a d'autres niveaux des noeuds de recherche.

Legal Status (Type, Date, Text)
Publication 20050526 A2 Without international search report and to be republished upon receipt of that report.

Main International Patent Class: **G06F**Fulltext Availability:
Detailed Description

Detailed Description

... a plurality of sub-indices (discussed below) and each sub-index is sent to a **search** node in a search node cluster 106.

[00041 In use, a user I 1 2...

...cluster 106 search respective parts of the primary index produced by indexer 104 and return sorted search results along with a document identifier and a score to dispatcher I IO. Dispatcher 1 1 0 merges the received results to produce a final list displayed to the users 1 12 sorted by relevance scores. The relevance score is a function of the query itself and the type of document produced. Factors that are used for relevance include: a static relevance score for the document such as link cardinality and page quality, superior parts of the document such as titles, metadata and document headers, authority of the document such as external references and the "level" of the references, and document statistics such as query term frequency in the document, global term frequency, and term distances within the document.

[00051 Referring now to Fig. 2, a cluster 106 of search...

...column 122 of search nodes, the same set of indices is replicated for each respective **search** node. For example, the **search** node in column 122a, row 124a, includes the

same subset of indices as the **search** node in column 122a, 124b. In each row 124 of **search** nodes, a different subset of indices is used. The indices are equally split so as...

16/5,K/12 (Item 12 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2005 WIPO/Univentio. All rts. reserv. **Image available** 01191967 DATABASE QUERY USER INTERFACE INTERFACE-UTILISATEUR D'INTERROGATION DE BASE DE DONNEES Patent Applicant/Assignee: MICROSOFT CORPORATION, One Microsoft Way, Redmond, WA 98052, US, US (Residence), US (Nationality), (For all designated states except: US) Inventor(s): VRONAY David P, 3 F, Beijing Sigma Center, No. 49, Xhichun Road, Haidian District, Beijing100080, CN, MARCJAN Cezary, 15916 NE 40th Way, Redmond, WA 98052, US, TURSKI Andrzej, 5708 223rd Avenue, NE, Redmond, WA 98053, US, KOTT Ryszard, 16717 NE 98th Pl., Redmond, WA 98052, US, Legal Representative: AMIN Himanshu S (et al) (agent), Amin & Turocy, LLP, 1900 E. 9th Street, 24th Floor, National City Center, Cleveland, OH 44115, US, Patent and Priority Information (Country, Number, Date): WO 2004114062 A2 20041229 (WO 04114062) Patent: Application: WO 2004US18503 20040610 (PCT/WO US04018503) Priority Application: US 2003461832 20030613 Designated States: (All protection types applied unless otherwise stated - for applications 2004+) AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PL PT RO SE SI SK TR (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG (AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW (EA) AM AZ BY KG KZ MD RU TJ TM Main International Patent Class: G06F Publication Language: English Filing Language: English Fulltext Availability: Detailed Description

English Abstract

Fulltext Word Count: 8409

Claims

A database query user interface combines the user convenience of simple text searching with the expressive refinements of powerful query languages. The database query user interface includes a query text string input from a user including one or more terms of a chunk expression language format. The database query user interface further includes a syntactical prompt for constructing a multi-element chunk expression language database query that is syntactically correct and complete and includes the text string input from the user. For example, the syntactical prompt is selected from the database based upon a weighted analysis of database information relating to database elements included in the text string input from the user. A database query formed according to the present user interface may then be persisted or stored as a database query object.

French Abstract

L'invention concerne une interface-utilisateur d'interrogation de base de donnees qui combine la facilite de la recherche en texte simple aux subtilites des langages d'interrogation puissants. Cette interface-utilisateur d'interrogation de base de donnees utilise une chaine de caracteres d'interrogation saisie par l'utilisateur, comprenant un ou plusieurs termes d'un format de langage d'expression segmente.

L'interface-utilisateur d'interrogation de base de donnees utilise egalement une invite syntaxique permettant de former une interrogation de base de donnees en langage d'expression segmente multi-element syntaxiquement correcte et complete et utilise la chaine de caracteres saisie par l'utilisateur. Par exemple, l'invite syntaxique est selectionnee dans la base de donnees sur la base d'une analyse ponderee des informations de la base de donnees concernant les elements de la base de donnees inclus dans la chaine de caracteres saisie par l'utilisateur. Une interrogation de base de donnees formee au moyen de la presente interface-utilisateur peut ensuite etre reutilisee ou stockee sous forme d'objet d'interrogation de base de donnees.

Legal Status (Type, Date, Text)

Publication 20041229 A2 Without international search report and to be republished upon receipt of that report.

Examination 20050922 Request for preliminary examination prior to expiration of applicable time limit under Rule 54bis.1(a)

Main International Patent Class: **G06F**Fulltext Availability:
Detailed Description

Detailed Description

suggested rewrite.

exceptions...

... results of a query.
[0017] Fig. 1 1 is a flow diagram of an automated **query** re-write method to create queries automatically by making a simpler query and adding

...modified query incorporating a

[0021] Fig. 15 is an illustration of a grammatical \mathbf{query} autocomplete (GQA) user interface.

3 [0022] Fig. 16 is a flow diagram of a GQA is a grammatical **query** autocomplete (GQA).

[0023] Fig. 17 is a flow diagram of a query weighting and sorting method for weighting and sorting the results returned from internal queries.

Detailed Description of Preferred Embodiments [0024] A conventional database system or database includes a collection of tables with record entries. Queries of the database are typically made using a query specification language, sometimes referred to as a data manipulation language, such as SQL. In addition, a full-text search engine can find records that contain text strings. A variety of commercially available databases are available,

strings. A variety of commercially available databases are available, including Microsoft SQL available from Microsoft Corporation. The **term** database is used herein to refer generally to any "property store" that includes objects or **files** with searchable **properties**.

[0025] Fig. 1 is a flow chart of a simplified representation of a prior art database **query** sequence 100. In a step 102, a user determines that he or she wants particular...

16/5,K/13 (Item 13 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2005 WIPO/Univentio. All rts. reserv. 01173034 **Image available** RELATIONSHIP VIEW VISUALISATION DE RELATIONS Patent Applicant/Assignee: MICROSOFT CORPORATION, One Microsoft Way, Redmond, WA 98052, US, US (Residence), US (Nationality) Inventor(s): DRUCKER Steven M, 22555 W. Lake Sammamish Parkway, SE, Bellevue, WA 98008 WONG Curtis G, 301 109th Avenue, SE, Bellevue, WA 98004, US, GLATZER Asta L, 7417 Old Redmond Road, Redmond, WA 98052, US, Legal Representative: AMIN Himanshu S (et al) (agent), Amin & Turocy, LLP, 1900 E. 9th Street, 24th Floor, National City Center, Cleveland, OH 44114, US, Patent and Priority Information (Country, Number, Date): WO 200495237 A2 20041104 (WO 0495237) Patent: Application: WO 2004US9190 20040326 (PCT/WO US04009190) Priority Application: US 2003420414 20030422 Designated States: (All protection types applied unless otherwise stated - for applications 2004+) AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PL PT RO SE SI SK TR (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG (AP) BW GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW (EA) AM AZ BY KG KZ MD RU TJ TM Main International Patent Class: Publication Language: English Filing Language: English

English Abstract

Claims

Fulltext Availability: Detailed Description

Fulltext Word Count: 11548

The present invention provides a unique method and user interface that facilitates accessing and browsing objects in which a user begins with a center object (e.g., one or a few focal objects) displayed on a screen and related objects are populated on the screen as well. The related objects can be further organized into clusters whereby each cluster or grouping of objects expands on a particular attribute of the center object. The attributes correspond to metadata. Thus, the objects are populated based upon the metadata of the center object. According to one aspect, the user can access one or more specific objects having a plurality of attributes and then relax at least one of the attributes to see what other objects share at least one attribute with the center object. According to another aspect, the object having the closest match to a search request can be centrally displayed with other close matches arranged by their respective metadata.

French Abstract

L'invention concerne un procede unique et une interface utilisateur facilitant l'acces et l'exploration d'objets, procede selon lequel un utilisateur commence par un objet central (par exemple, un ou quelques objets focaux) affiches sur un ecran, des objets apparentes peuplant egalement l'ecran. Les objets apparentes peuvent etre ulterieurement organises en grappes, chaque grappe ou groupement d'objets s'etendant sur

un attribut particulier de l'objet central. Les attributs correspondent a des meta-donnees. De cette facon, les objets sont peuples sur la base des meta-donnees de l'objet central. Conformement a un aspect de l'invention, l'utilisateur peut acceder a un ou plusieurs objets specifiques ayant une pluralite d'attributs, puis relacher au moins l'un des attributs pour voir quel autre objet partage au moins un attribut avec l'objet central. Conformement a un autre aspect, l'objet correspondant le plus a une demande de recherche peut etre affiche au centre, avec d'autres correspondances proches, agencees par leurs meta-donnees respectives

Legal Status (Type, Date, Text)

Publication 20041104 A2 Without international search report and to be republished upon receipt of that report.

Examination 20050922 Request for preliminary examination prior to expiration of applicable time limit under Rule 54bis.1(a)

Main International Patent Class: **G06F**Fulltext Availability:
Detailed Description

Detailed Description

- ... 0 has metadata associated therewith and can be received for example by a user-based **search** request mechanism. Other mechanisms can also be employed to receive the first object.

 One approach to the process 300 involves performing a non-specific **search** request using one or more attributes (metadata) such as when the desired object is not known. For example, when a user would like to **find** a particular book title written by Stephen King or one of his other pseudonyms published...
- ...the year it was published, a user can enter

 1

 one or more non-specific search terms in order to retrieve an
 object somewhat related to or in the neighborhood of the desired object
 (e.g...
- ...user. At 330, a plurality of additional objects (e.g., book titles, movies, websites, news **articles**, etc.) having respective **metadata** associated therewith. The respective inetadata of the additional objects are at least in part related...
- ...Stand" book cover (e.g., first object). Metadata associated with the first object can be weighted to determine the strength of correlation between the first object and other objects selected for clustering. The weight of each metadata associated with the first object can be determined based at least in part upon user input (e.g., via a user-based search request).

In one aspect of the present invention, objects having the strongest correlation to the...

16/5,K/14 (Item 14 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2005 WIPO/Univentio. All rts. reserv. 01121949 **Image available** METHOD AND APPARATUS FOR PROCESSING FILES UTILIZING A CONCEPT OF WEIGHT SO AS TO VISUALLY REPRESENT THE FILES IN TERMS OF WHETHER THE WEIGHT THEREOF IS HEAVY OR LIGHT METHOD AND APPARATUS FOR PROCESSING FILES UTILIZING A CONCEPT OF WEIGHT SO AS TO VISUALLY REPRESENT THE FILES IN TERMS OF WHETHER THE WEIGHT THEREOF IS HEAVY OR LIGHT METHODE ET APPAREIL DE TRAITEMENT DE FICHIERS UTILISANT UN CONCEPT À BASE DE POIDS POUR LES REPRESENTER VISUELLEMENT SELON LEUR POIDS Patent Applicant/Assignee: SONY COMPUTER ENTERTAINMENT INC, 2-6-21, Minami-Aoyama, Minato-ku, Tokyo 107-0062, JP, JP (Residence), JP (Nationality) WADA Shinya, c/o SONY COMPUTER ENTERTAINMENT INC., 2-6-21, Minami-Aoyama, Minato-ku, Tokyo 107-0062, JP, Legal Representative: MORISHITA Sakaki (agent), 2-11-12, Ebisu-Nishi, Shibuya-ku, Tokyo 150-0021, JP, Patent and Priority Information (Country, Number, Date): WO 200444728 A2-A3 20040527 (WO 0444728) WO 2003JP14286 20031110 (PCT/WO JP03014286) Application: Priority Application: JP 2002328853 20021112 Designated States: (Protection type is "patent" unless otherwise stated - for applications prior to 2004) AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE SI SK TR (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW (EA) AM AZ BY KG KZ MD RU TJ TM Main International Patent Class: G06F-003/033 Publication Language: English

Filing Language: English Fulltext Availability: Detailed Description

Claims

Fulltext Word Count: 12179

English Abstract

On a screen a file processing apparatus displays values of an attribute related to a plurality of files using a concept of weight. The weight of each file is represented by spherical objects submerged into the water and displayed on the screen. For example, a first spherical object represents a file whose data size is large, and is sunk near bottom. And a second spherical object represents a file whose data size is light and is floating near the water surface.

French Abstract

L'invention porte sur un appareil de traitement de fichiers presentant sur un ecran les valeurs d'attributs de differents fichiers en utilisant un concept a base de poids. A chaque fichier est attribue un poids represente par un objet spherique immerge dans de l'eau, apparaissant sur l'ecran. Par exemple un premier objet spherique representant un gros fichier de donnees flotte au voisinage du fond, tandis qu'un deuxieme objet spherique representant un petit fichier de donnees flotte au voisinage de la surface.

Legal Status (Type, Date, Text)
Publication 20040527 A2 Without international search report and to be republished upon receipt of that report.

Examination 20040812 Request for preliminary examination prior to end of 19th month from priority date

Search Rpt 20041216 Late publication of international search report
Republication 20041216 A3 With international search report.

Main International Patent Class: G06F-003/033
Fulltext Availability:
Detailed Description

Detailed Description

... a file are displayed simply as a character string on the screen, the user may **find** it difficult to read them when selecting a desired file. This may also develop into...

...files at the respective display positions on a screen, and expressing visually comparison of the weights of the objects via another object that symbolizes weight measurement.

"Another object that symbolizes **weight** measurement" is a character that is used to display on the screen a comparison of **weights** between files or a measurement of a total **weight** of a plurality of files. Such an object used for instance is a weighing device...

... This method includes: acquiring values of a predetermined attribute for a plurality of files, in order to represent the values of a predetermined attribute for intended files by using a concept of weight; setting a temporary sequence for the plurality of files; determining, based on the temporary sequence, a temporary display position of a predetermined object that symbolically represents the files in terms of whether the weight thereof is heavy or light; displaying an object that corresponds to the plurality of files, at the temporary display position on a screen; comparing the values of a predetermined attribute between adjacent files in the temporary sequence; updating the display position based on a comparison result obtained from the comparing; and representing visually the weight thereof by varying display contents according to the updating.

A "temporary sequence" may be a temporary **order** of arrangement for convenience, sake, for instance, when displaying on the screen a plurality of...
...still an initial display state, and the values of an attribute using the concept of **weight** are not yet represented.

"Adjacent files" are not necessarily strictly adjacent to each other in...

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16/5,K/15
              (Item 15 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
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            **Image available**
SYSTEM AND METHOD OF CREATING AND USING COMPACT LINGUISTIC DATA
SYSTEME ET PROCEDE DE GENERATION ET D'UTILISATION DE DONNEES LINGUISTIQUES
    COMPACTEES
Patent Applicant/Assignee:
  2012244 ONTARIO INC, 295 Phillip Street, Waterloo, Ontario N2L 3W8, CA,
    CA (Residence), CA (Nationality), (For all designated states except:
Patent Applicant/Inventor:
  FUX Vadim, 575 Rustic Drive, Waterloo, Ontario N2K 2A4, CA, CA
    (Residence), IL (Nationality), (Designated only for: US)
  ELIZAROV Michael G, 465 Kingscourt Drive, Unit 3, Waterloo, Ontario N2K
    3R5, CA, CA (Residence), IL (Nationality), (Designated only for: US)
Legal Representative:
  PATHIYAL Krishna K (et al) (agent), Research In Motion Limited, 295 Phillip Street, Waterloo, Ontario N2L 3W8, CA,
Patent and Priority Information (Country, Number, Date):
                         WO 200406122 A2 20040115 (WO 0406122)
  Patent:
  Application:
                         WO 2003CA1023 20030703 (PCT/WO CA03001023)
  Priority Application: US 2002393903 20020703; US 2002289656 20021107; CA
    2411227 20021107
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
  EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
  LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG
  SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
  (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE
  SI SK TR
  (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: G06F-017/27
Publication Language: English
Filing Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 8850
English Abstract
French Abstract
Legal Status (Type, Date, Text)
Publication 20040115 A2 Without international search report and to be
                        republished upon receipt of that report.
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Legal Status (Type, Date, Text)
Publication 20040115 A2 Without international search report and to be republished upon receipt of that report.

Declaration 20040422 Late publication under Article 17.2a
Republication 20040422 A2 With declaration under Article 17(2)(a); without abstract; title not checked by the International Searching Authority.

Main International Patent Class: G06F-017/27 Fulltext Availability:
Detailed Description

Detailed Description
... analyzer 202 illustrated in Fig. 6.

The absolute frequency of a certain group of words **found** in the corpus 200 may alternatively be modified by separating this group to a different file lo and assigning a custom **weight** to this file. This group may consist of words which are domain specific, such as...

...absolute value of the frequencies for this group of words will be modified using the **weight** assigned to the group, so that this group of **words** will have frequencies that are different they would have otherwise had.

Fig. 3 is flowchart...

...comprises a corpus. The filtering method is the first step in calculating the frequency of **words** in the corpus.

The method begins with the step 300 of reading the contents a...

...of text, from the file according to user preferences, which may be stored in a **properties file**. The user preferences specify regular expressions which are applied to the text in **order** to substitute invalid or unwanted characters. For example, a user may not want street names included in the **word** 8 list, or an Italian user may want to replace "e"' followed by a non...

```
Set
        Items
                Description
S1
                SEARCH?? OR SEARCHING OR FIND? ? OR FINDING OR FOUND OR RE-
      7234797
             TRIEVE? ? OR RETRIEVING OR RETRIEVAL OR QUERY OR QUERIES OR Q-
             UERYING
S2
      3363549
                KEYWORD? ? OR PHRASE? ? OR TERM? ? OR WORD? ?
S3
      9853729
                ATTRIBUTE? ? OR CHARACTERISTIC? ? OR PROPERTY OR PROPERTIES
              OR METADATA
S4
                SCALE? '? OR SCALING OR SCORE? ? OR SCORING OR WEIGHT?? OR -
      3955618
             WEIGHTING
$5
      4489378
                ORDER?? OR ORDERING OR SORT?? OR SORTING
S6
         4114
                S1 AND S2 AND S3 AND S4 AND S5
      1985265 FILE? ? OR DOCUMENT? ? OR ARTICLE? ? OR WEBPAGE? ? OR WEBS-
S7
             ITE?
S8
        15580
               S7 (3N) S3
S9
           13
                S1 AND S2 AND S8 AND S4 AND S5
S10
           10
                S9 NOT PY>2001
S11
            9
                RD (unique items)
S12
      1098355
                WEB OR WEBPAGE? ? OR WEBSITE? ? OR ONLINE OR ON()LINE OR I-
             NTERNET? ? OR INTRANET? EXTRANET? ? OR WWW OR WORLDWIDE() WEB
S13
          106
                S6 AND S12
S14
           21
                S1 (10N) S2 (10N) S12 AND S3 AND S4 AND S5
S15
           20
                S14 NOT S11
S16
                S15 NOT PY>2001
           11
S17
            8
                RD
                    (unique items)
File
       8:Ei Compendex (R) 1970-2006/Jan W1
         (c) 2006 Elsevier Eng. Info. Inc.
File
      35:Dissertation Abs Online 1861-2005/Dec
         (c) 2005 ProQuest Info&Learning
File
      65: Inside Conferences 1993-2006/Jan W2
         (c) 2006 BLDSC all rts. reserv.
File
       2:INSPEC 1898-2006/Dec W3
         (c) 2006 Institution of Electrical Engineers
File
      94:JICST-EPlus 1985-2006/Oct W5
         (c) 2006 Japan Science and Tech Corp (JST)
File 111:TGG Natl.Newspaper Index(SM) 1979-2006/Jan 04
         (c) 2006 The Gale Group
       6:NTIS 1964-2006/Dec W3
File
         (c) 2006 NTIS, Intl Cpyrght All Rights Res
File 144:Pascal 1973-2006/Dec W3
         (c) 2006 INIST/CNRS
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
     34:SciSearch(R) Cited Ref Sci 1990-2006/Jan W1
         (c) 2006 Inst for Sci Info
File
     62:SPIN(R) 1975-2006/Oct W5
         (c) 2006 American Institute of Physics
File
     99:Wilson Appl. Sci & Tech Abs 1983-2005/Nov
         (c) 2006 The HW Wilson Co.
File
     95:TEME-Technology & Management 1989-2006/Jan W2
         (c) 2006 FIZ TECHNIK
File
     56: Computer and Information Systems Abstracts 1966-2005/Dec
         (c) 2005 CSA.
File
     57: Electronics & Communications Abstracts 1966-2005/Dec
         (c) 2005 CSA.
```

(Item 2 from file: 35) DIALOG(R) File 35: Dissertation Abs Online (c) 2005 ProQuest Info&Learning. All rts. reserv.

940984 ORDER NO: AAD87-02080

A COMPOSITE MEASURE FOR WEIGHTING DATABASES IN DEFENSE, ENGINEERING, AND SCIENCE (MULTIDATABASE SEARCHING , ONLINE SEARCHING , DIALINDEX)
Author: RITTENHOUSE, ROBERT JOHN

PH.D. Degree: 1986 Year:

Corporate Source/Institution: CASE WESTERN RESERVE UNIVERSITY (0042)

VOLUME 47/10-A OF DISSERTATION ABSTRACTS INTERNATIONAL. Source:

PAGE 3598. 298 PAGES

Descriptors: INFORMATION SCIENCE

Descriptor Codes: 0723

The primary problem of this dissertation is to propose a composite measure as a technique for measuring the relevancy of databases. The databases are characterized as single units by the measure of closeness, C(,M), values. The measure of closeness consists of two weighted factors: (1) a relevance factor, and (2) a descriptive factor. The relevance factor is the sum of the recall and precision ratios. The descriptive factor is the sum of the weighted properties of each file as follows: (1) subject coverage, (2) thesaurus strength, (3) technical level, (4) subject coding, and (5) length of years **searched** retrospectively.

Two experiments were conducted to test if the measure of closeness may be utilized to select the relevant databases in DIALINDEX searches in the general areas of defense, engineering, and science. Databases from Dialog Information Services, Inc., Defense Logistics Studies Information Exchange, Defense Technical Information Center, Mead Data Central Nexis, NASA/RECON, and DOE/RECON were also used. Searches were conducted in seven sample topics: (1) composites, (2) missiles, (3) rockets, (4) sonar, (5) torpedoes, (6) underwater acoustics, and (7) underwater weapons.

For each of the seven topics, online searches were performed on a group of databases. These databases, ranked according to C(,M) values, were compared with their corresponding databases ranked by retrievals from DIALINDEX, a Dialog multidatabase file. The first experiment compared six randomly selected Dialog files and Dialog files subjectively selected for their expected higher relevance to the topics. While randomly selected files retrieved some relevant citations, these files generally did not contain many relevant citations. The second experiment compared the DIALINDEX method and the measure of closeness, C(,M), technique.

Mann-Whitney two rank and Spearman Rho rank correlation tests failed to indicate conclusively that the DIALINDEX method is different from use of the weighted measure of closeness alone. The tests did indicate DIALINDEX term frequency retrievals appear to result in ranking relevant databases. Possible artificial intelligence designs may further enhance the future modelling of weighting schemes for more effective multivendor and multidatabase online search techniques.

Only unclassified terms , titles and/or abstracts were discussed in order to conform to U.S. national security requirements.

11/5/6 (Item 4 from file: 2)

DIALOG(R) File 2: INSPEC

(c) 2006 Institution of Electrical Engineers. All rts. reserv.

04182617 INSPEC Abstract Number: C88047289

Title: Probabilistic design principles for conventional and full-text retrieval systems

Author(s): Maron, M.E.

Author Affiliation: Sch. of Libr. & Inf. Studies, California Univ., Berkeley, CA, USA

Journal: Information Processing & Management vol.24, no.3 p.249-55

Publication Date: 1988 Country of Publication: UK

CODEN: IPMADK ISSN: 0306-4573

U.S. Copyright Clearance Center Code: 0306-4573/88/\$3.00+.00

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: In order for conventionally designed commercial document retrieval systems to perform perfectly, the following two (logical) conditions must be satisfied for every search: (1) There exists a document property (of combination or properties) that belongs to those (and only those) documents that are relevant. (2) That property (or combination of properties) can be correctly guessed by the searcher. In general, the first assumption is false, and the second is impossible to satisfy; hence no conventional IR system can perform at a maximum level of effectiveness. However, different design principles can lead to improved performance. The article presents a view of the document retrieval problem that shows that since the relationship between document properties (whether they be humanly assigned index terms or words that occur in the running text) and relevance is at best probabilistic, one should approach the design problem using probabilistic principles. It turns out that a front end designed to permit searchers to attach probabilistically interpreted weights to their query terms could be adapted for conventional IR systems. Such an enhancement could lead to improved performance. (37 Refs)

Subfile: C

Descriptors: information retrieval

Identifiers: conventional; full-text retrieval systems; document retrieval systems; document property; IR system; document retrieval problem; probabilistic principles; front end; probabilistically interpreted weights; query terms

Class Codes: C7250 (Information storage and retrieval)

DIALOG(R) File 2: INSPEC (c) 2006 Institution of Electrical Engineers. All rts. reserv. INSPEC Abstract Number: C2000-10-7210N-027 Title: ROC performance evaluation of Web-based bibliographic navigator using extended association rules Author(s): Kawahara, M.; Kawano, H. Author Affiliation: Data Process. Center, Kyoto Univ., Japan Conference Title: 5th International Computer Science Conference ICSC'99. Proceedings (Lecture Notes in Computer Science Vol. 1749) Editor(s): Hui, L.C.-K.; Lee, D.L. Publisher: Springer-Verlag, Berlin, Germany Publication Date: 1999 Country of Publication: Germany xx+518 pp. ISBN: 3 540 66903 5 Material Identity Number: XX-1999-03571 Conference Title: Proceedings of ICSC'99: 5th International Computer Science Conference Conference Date: 13-15 Dec. 1999 Conference Location: Hong Kong, China Document Type: Conference Paper (PA) Language: English Treatment: Practical (P) Abstract: It is very effective for search users to provide meaningful which are derived by text mining algorithm. We are developing keywords our search engine "Mondou" using weighted association rules, as a Web -based intelligent database navigation system. In this paper, we focus on the computing cost to derive appropriate keywords, we carefully determine system parameters, such as Minsup and Mincon f threshold values. In order to evaluate the performance and characteristics of derived rules, we use the techniques of ROC graph. We propose the ROC analytical model of our search system, and we evaluate the performance of **weighted** association rules by the ROC convex hull method. Especially, we try to specify the optimal threshold values to derive effective rules from INSPEC database, which is a huge bibliographic database. (6 Refs) Descriptors: bibliographic systems; deductive databases; information resources; optimisation; search engines; software performance evaluation; text analysis; very large databases Identifiers: ROC performance evaluation; Web-based bibliographic navigator; extended association rules; meaningful keywords; text mining algorithm; search engine; Mondou; weighted association rules; Web-based intelligent database navigation system; Minsup threshold value; Mincon f threshold value; ROC graph; ROC convex hull method; optimal threshold values; INSPEC database; bibliographic database Class Codes: C7210N (Information networks); C7250C (Bibliographic retrieval systems); C7240 (Information analysis and indexing); C6160K (

Deductive databases); C1180 (Optimisation techniques)

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(Item 2 from file: 2)

17/5/2

17/5/4 (Item 1 from file: 94) DIALOG(R) File 94: JICST-EPlus (c)2006 Japan Science and Tech Corp(JST). All rts. reserv. JICST ACCESSION NUMBER: 01A1008142 FILE SEGMENT: JICST-E An Interactive Method for Supporting WWW Retrieval Based on Adjustable Ranking of Documents. KINOSHITA ATSUFUMI (1); NAKAGAWA KOKORO (1); TAKADA YOSHIAKI (1); SEKI HIROYUKI (1)
(1) Advanced Inst. Sci. and Technol., Nara Joho Shori Gakkai Kenkyu Hokoku, 2001, VOL.2001, NO.86 (FI-64 NL-145), PAGE.63-70, FIG.4, TBL.3, REF.18 JOURNAL NUMBER: Z0031BAO ISSN NO: 0919-6072 UNIVERSAL DECIMAL CLASSIFICATION: 002.5:005 681.3:061.68 LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan DOCUMENT TYPE: Journal ARTICLE TYPE: Original paper MEDIA TYPE: Printed Publication ABSTRACT: We propose a method for supporting WWW document retrieval which allows a user to adjust a ranking of documents. Many keyword -based search services are available and these services provide a user with a ranked list of documents, arranged in a descending order of relevancy to input keywords. Various scoring methods to rank documents have been proposed; however, a highly-ranked document is not always a desirable one for the user. This difference puts stress on the user because not only is it difficult to find desirable documents, but also no means to adjust the ranking is provided. To overcome the problem, we propose three methods for allowing a user to directly adjust ranking of documents. A retrieval system based on the proposed method has been implemented and experimental results on 6 human subjects are presented. (author abst.) DESCRIPTORS: document retrieval; query processing; WWW(communication); keyword; contraction(mathematics); similarity; statistical estimation; interactive processing; recall precision; performance evaluation IDENTIFIERS: feature vector; degree of association; ranking BROADER DESCRIPTORS: information retrieval; retrieval; information processing; treatment; information system; computer application system; system; vocabulary; property; estimation; statistical decision; decision; statistical method; efficiency; evaluation CLASSIFICATION CODE(S): AC06020S; JD03030U; JE15050M

17/5/5 (Item 2 from file: 94) DIALOG(R) File 94: JICST-EPlus (c)2006 Japan Science and Tech Corp(JST). All rts. reserv. JICST ACCESSION NUMBER: 99A0354360 FILE SEGMENT: JICST-E Studies on User Adaptive Browsing System on Internet. IMANAKA TAKESHI (1); OZAWA JUN (1); MIURA KOJI (1); MATSUURA SATOSHI (1) (1) Matsushita Electr. Ind. Co., Ltd., Cent. Res. Lab. Jinko Chino Gakkai Chishiki Besu Shisutemu Kenkyukai Shiryo(SIG-KBS), 1999 , VOL.43rd, PAGE.81-86, FIG.9, REF.6 JOURNAL NUMBER: X0831ABG UNIVERSAL DECIMAL CLASSIFICATION: 681.3.02+ 681.3:007.51 LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan DOCUMENT TYPE: Conference Proceeding ARTICLE TYPE: Original paper MEDIA TYPE: Printed Publication ABSTRACT: This paper describes two of our studies on user adaptive browsing system on Internet . One is a Kansei retrieval system which enables users to retrieve database by Kansei words like "cheerful", "happy" and so on. In this system, we introduce Kansei model to define individuality in users' feelings about web pages on WWW (World Wide Web). By making use of the model, the system can adjust database to each user's Kansei in retrieving. The other is a browsing system with user adaptive index which is constructed by weighted keywords in HTML text. The weight of keywords in the index is computed by our proposed event driven rules called XECA (eXtended Event Condition Action) rules. XECA rules are defined as an extension of conventional ECA rules to deal with time constraints. In our system, the index involves user's preferences which are extracted automatically depending on how the user has browsed pages (i.e. order , time). As a result, the user can find favorite web pages easily by using the index. (author abst.) DESCRIPTORS: information retrieval; machine learning; sensibility; adaptive system; browsing; keyword; index; weighting; constraint condition(restriction); database BROADER DESCRIPTORS: retrieval; learning; sensitivity; property; system; reading(library); action and behavior; vocabulary; condition CLASSIFICATION CODE(S): JE15050M; JE08000Z

(Item 3 from file: 94) 17/5/6 DIALOG(R) File 94: JICST-EPlus (c)2006 Japan Science and Tech Corp(JST). All rts. reserv. JICST ACCESSION NUMBER: 96A0736608 FILE SEGMENT: JICST-E Implementation and Evaluation of WWW Search System RCAAU. NISHIMURA HIDEKI (1); KAWANO HIROYUKI (2); HASEGAWA TOSHIHARU (2) (1) Sharp Corp.; (2) Kyoto Univ., Graduate School Denshi Joho Tsushin Gakkai Gijutsu Kenkyu Hokoku(IEIC Technical Report (Institute of Electronics, Information and Communication Enginners), 1996, VOL.96,NO.177(DE96 54-64), PAGE.1-6, FIG.5, TBL.4, REF.8 JOURNAL NUMBER: S0532BBG UNIVERSAL DECIMAL CLASSIFICATION: 681.3:061.68 002.5:005 COUNTRY OF PUBLICATION: Japan LANGUAGE: Japanese DOCUMENT TYPE: Journal ARTICLE TYPE: Original paper MEDIA TYPE: Printed Publication ABSTRACT: We have been developing WWW search system with the several advanced functions, such as keywords focusing by a data mining techniques and network characteristics evaluation. In this paper, we explain implementation of WWW robot which collects data from Web servers and stores several attributes into database. Then, based on http access log, we analyze keywords of queries and its embedded tendency. Moreover, in order to investigate throughly how effective our functions are for users, we evaluate the quality of keywords derived by weighted association rule. (author abst.) DESCRIPTORS: database; information retrieval; correlation function; knowledge acquisition; keyword; recall precision; data collection; search problem BROADER DESCRIPTORS: retrieval; function(mathematics); mapping(mathematics) ; acquisition; vocabulary; efficiency; information collection; collection; information processing; treatment; problem CLASSIFICATION CODE(S): JD03030U; AC06020S

2/5/1

DIALOG(R) File 350: Derwent WPIX

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015268212 **Image available**
WPI Acc No: 2003-329141/200331

XRPX Acc No: N03-263277

Web page search method e.g. for mathematics web page involves calculating overall matching score for ordering selected web page, based on determined criterion matching score and associated scaling factor

Patent Assignee: MASTERS G S (MAST-I)

Inventor: MASTERS G S

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week US 20020198875 A1 20021226 US 2001885902 A 20010620 200331 B

Priority Applications (No Type Date): US 2001885902 A 20010620

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 20020198875 A1 14 G06F-007/00

Abstract (Basic): US 20020198875 A1

NOVELTY - A search criterion associated with a keyword match between a keyword entry and identified web pages, is established based on the attribute of the web pages. A criterion matching score for the web pages is determined and a scaling factor is associated with the search criteria for calculating an overall matching score based on which the selected web page is ordered.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) web page search engine; and

(2) web page search computer system.

USE - For searching database storing web page comprising information about particular subject e.g. mathematics, English literacy, other languages, computer science, etc., by high school student using web page search computer system (claimed).

ADVANTAGE - The user is enabled to conduct search of web page that simultaneously takes account of keyword matching and web page attributes. The user is enabled to easily vary and adjust the relative weighting of the search criteria for optimizing search result.

DESCRIPTION OF DRAWING(S) - The figure shows a flowchart explaining the web page search process.

pp; 14 DwgNo 1/9

Title Terms: WEB; PAGE; SEARCH; METHOD; MATHEMATICAL; WEB; PAGE; CALCULATE; OVERALL; MATCH; SCORE; ORDER; SELECT; WEB; PAGE; BASED; DETERMINE; CRITERIA; MATCH; SCORE; ASSOCIATE; SCALE; FACTOR

Derwent Class: T01

International Patent Class (Main): G06F-007/00

File Segment: EPI